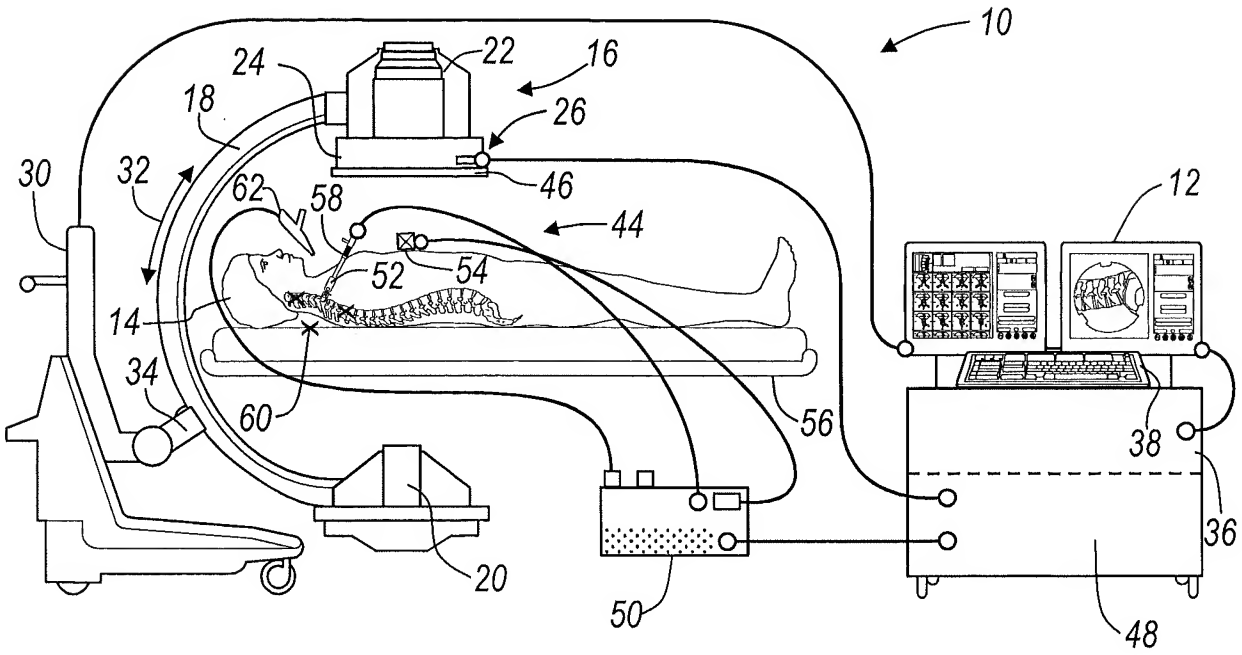


FIG. 1

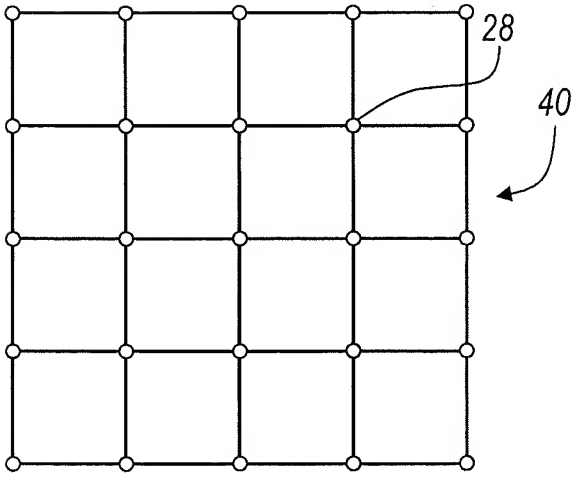


FIG. 2A

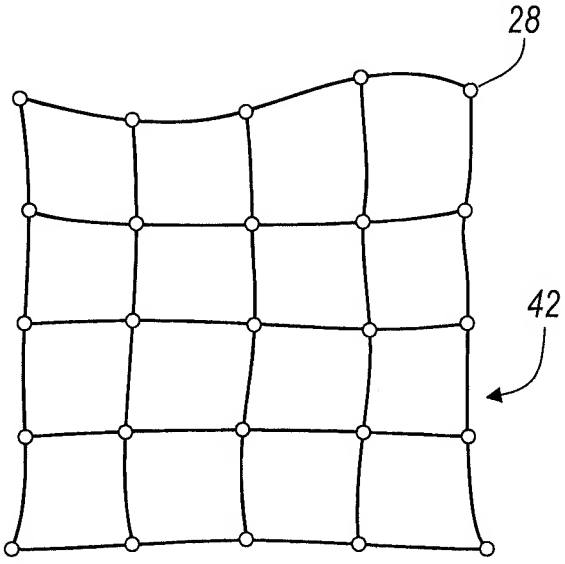


FIG. 2B

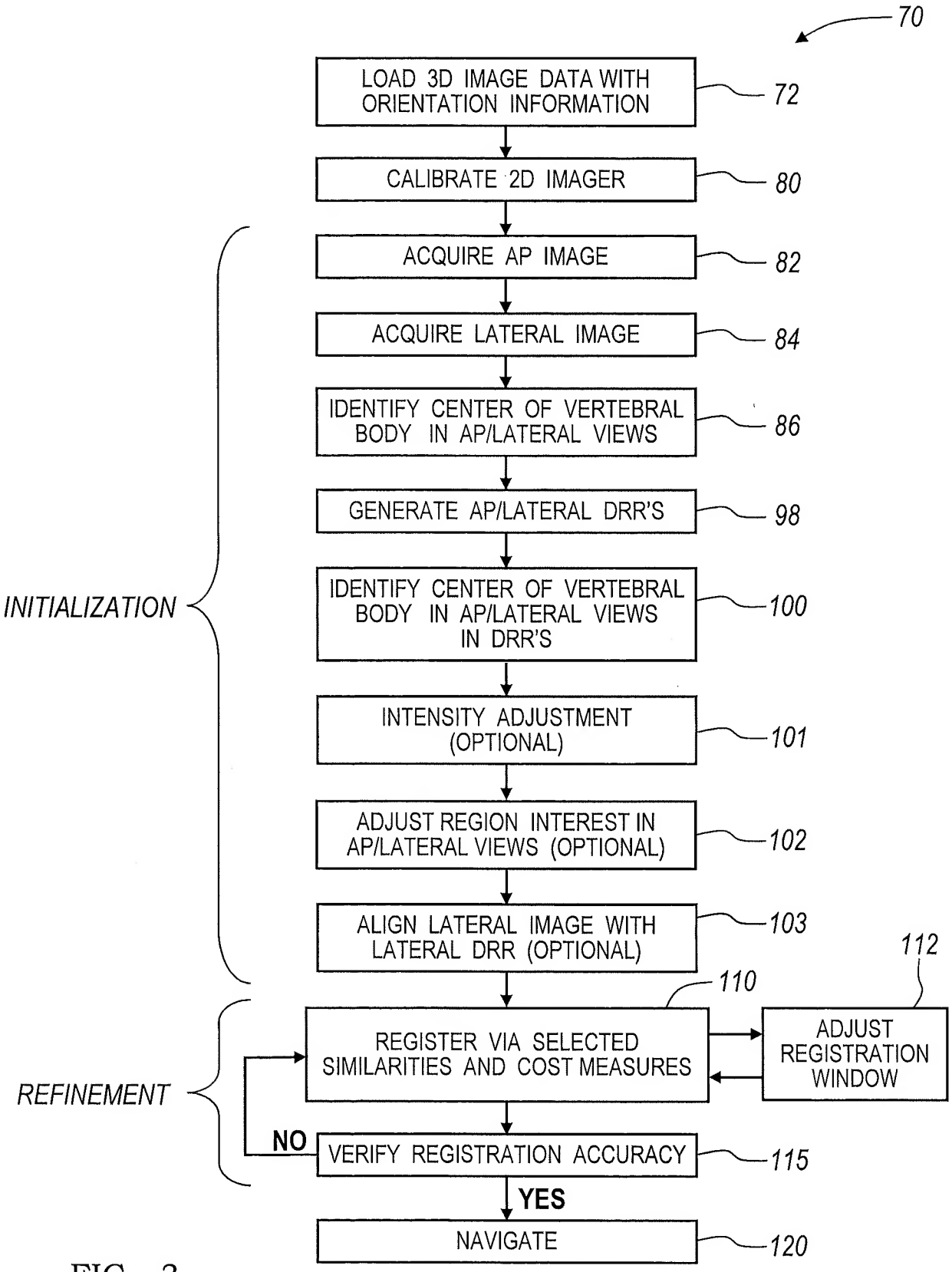
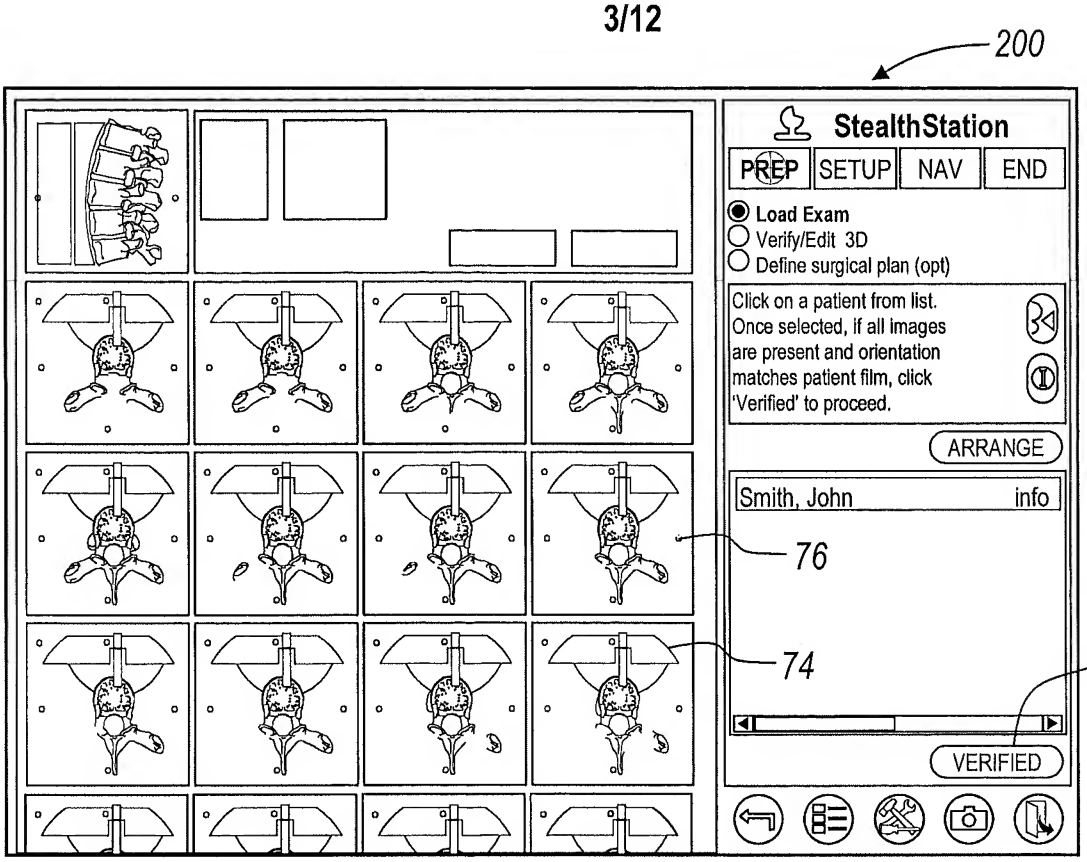
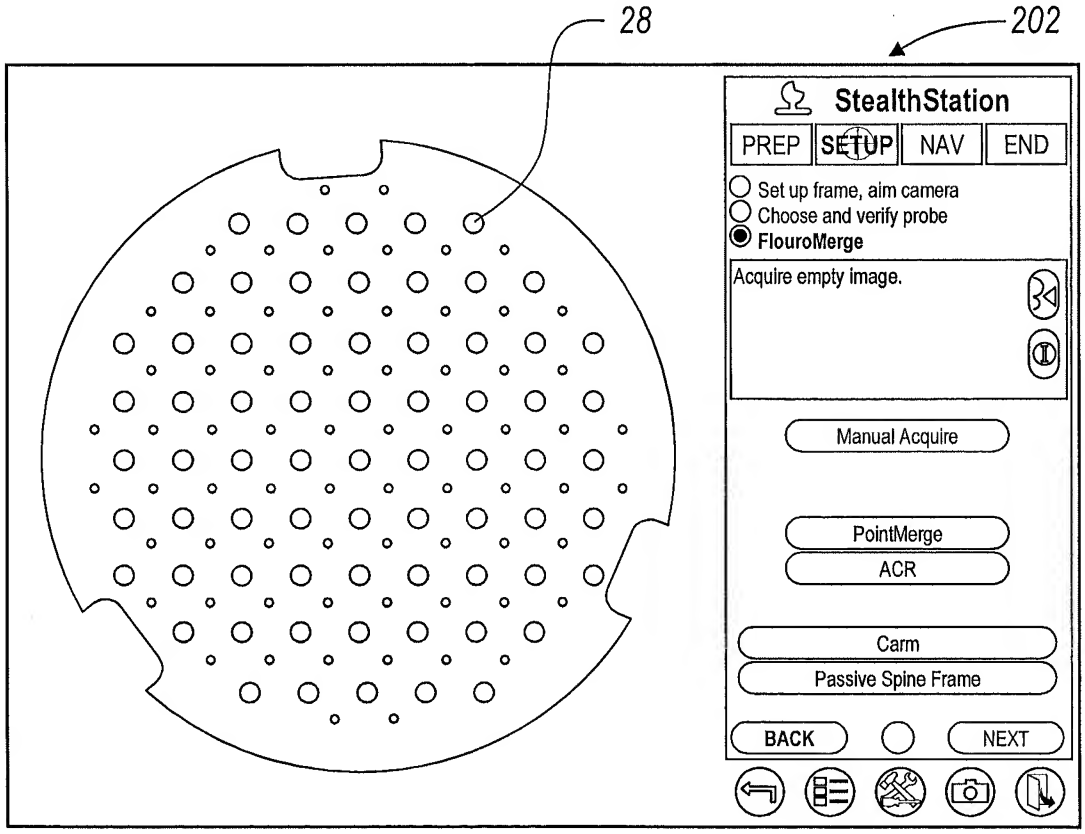

70
LOAD 3D IMAGE DATA WITH ORIENTATION INFORMATION
72
CALIBRATE 2D IMAGER
80
ACQUIRE AP IMAGE
82
ACQUIRE LATERAL IMAGE
84
IDENTIFY CENTER OF VERTEBRAL BODY IN AP/LATERAL VIEWS
86
GENERATE AP/LATERAL DRR'S
98
IDENTIFY CENTER OF VERTEBRAL BODY IN AP/LATERAL VIEWS IN DRR'S
100
INTENSITY ADJUSTMENT (OPTIONAL)
101
ADJUST REGION INTEREST IN AP/LATERAL VIEWS (OPTIONAL)
102
ALIGN LATERAL IMAGE WITH LATERAL DRR (OPTIONAL)
103
INITIALIZATION
112
110
REGISTER VIA SELECTED SIMILARITIES AND COST MEASURES
ADJUST REGISTRATION WINDOW
REFINEMENT
NO
VERIFY REGISTRATION ACCURACY
115
YES
NAVIGATE
120

FIG. 3



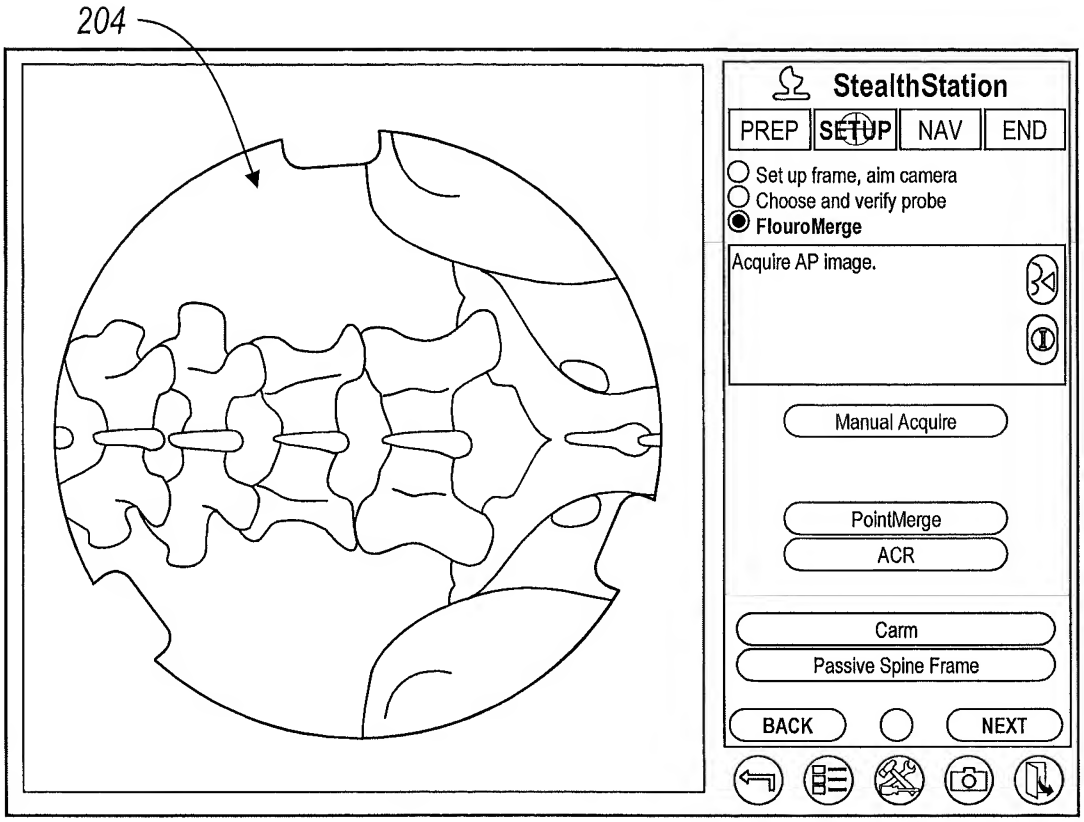
PREVIEW EXAM

FIG. 4



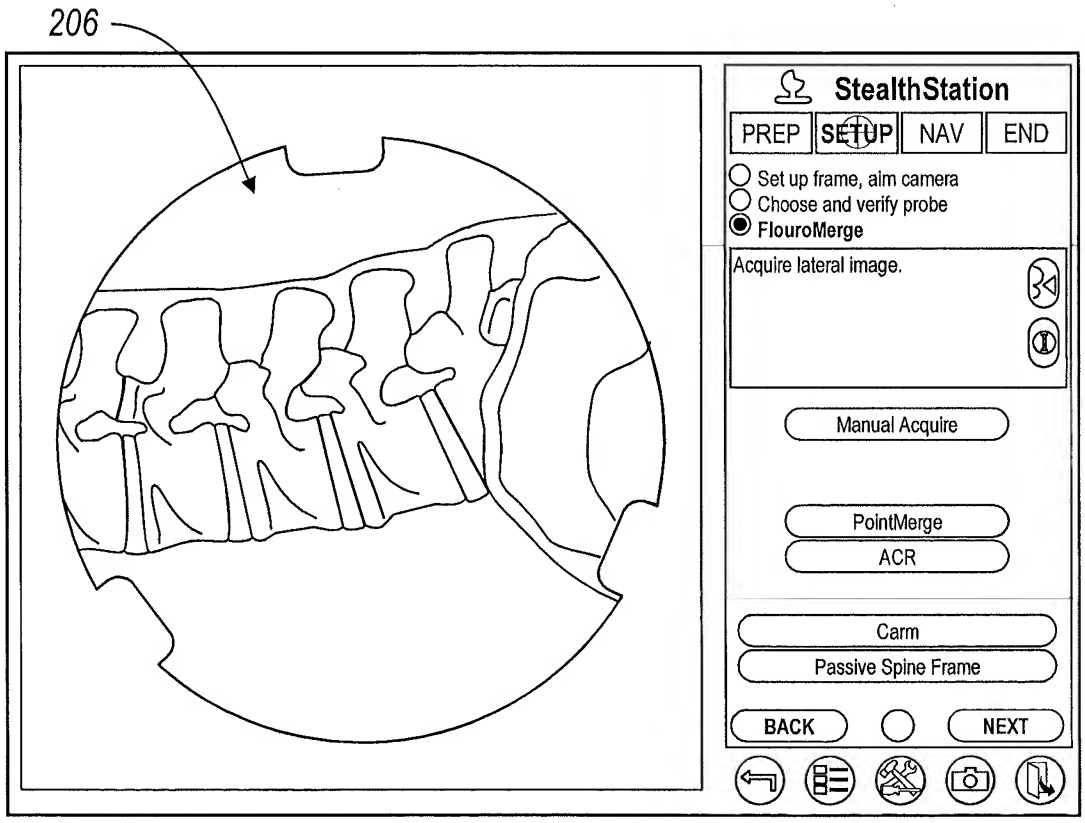
ACQUIRE EMPTY IMAGE

FIG. 5



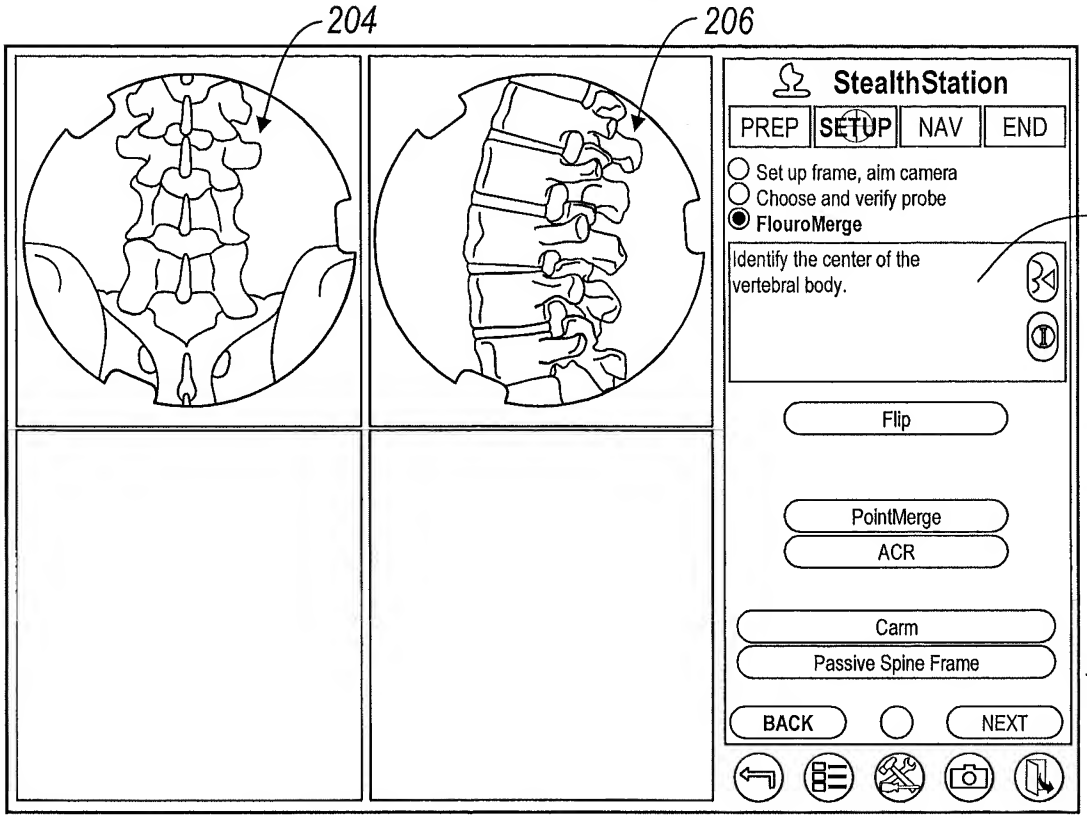
ACQUIRE AP IMAGE

FIG. 6



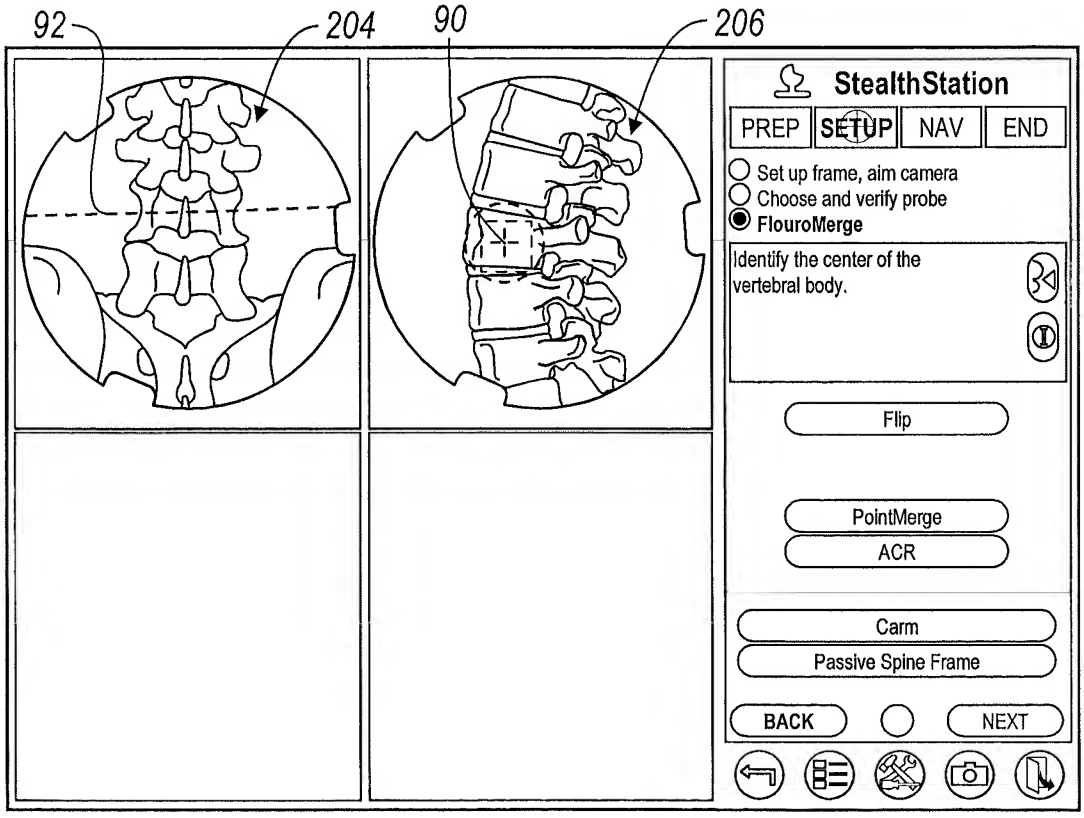
ACQUIRE LATERAL IMAGE

FIG. 7



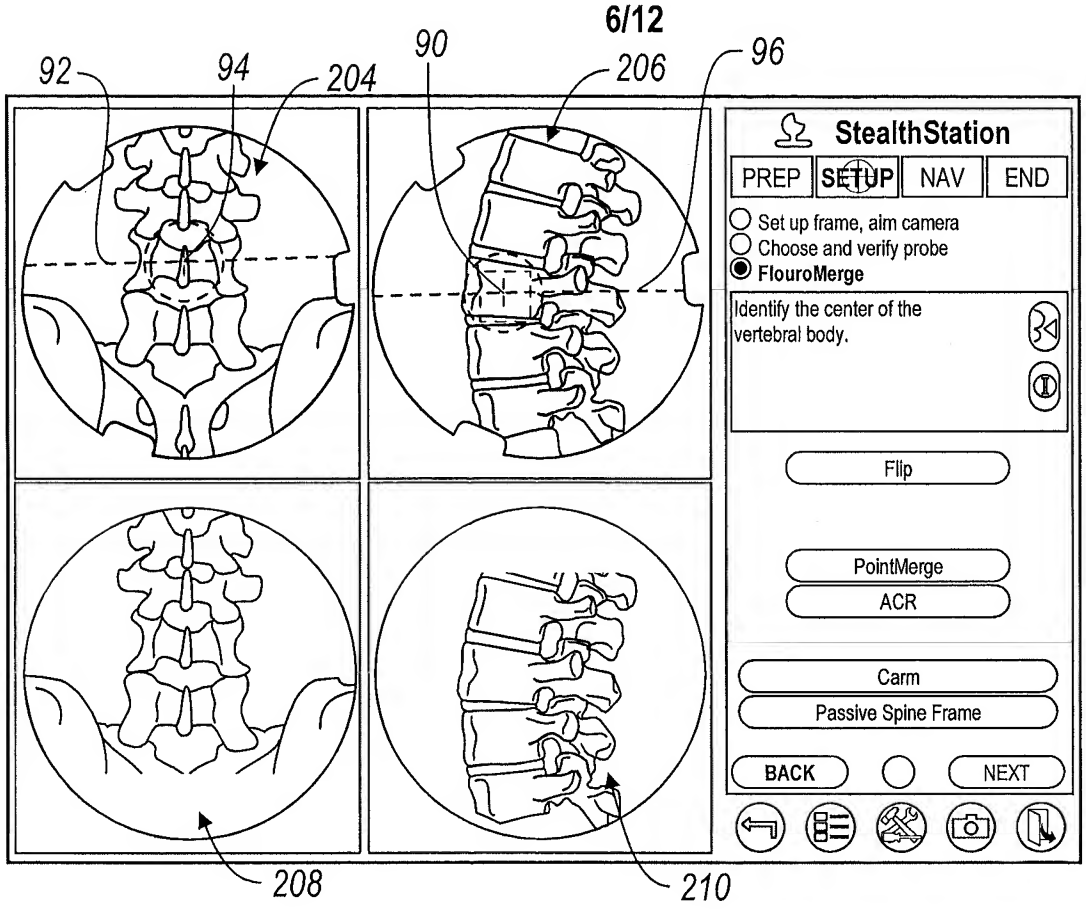
IDENTIFY CENTER OF VERTEBRAL BODY

FIG. 8



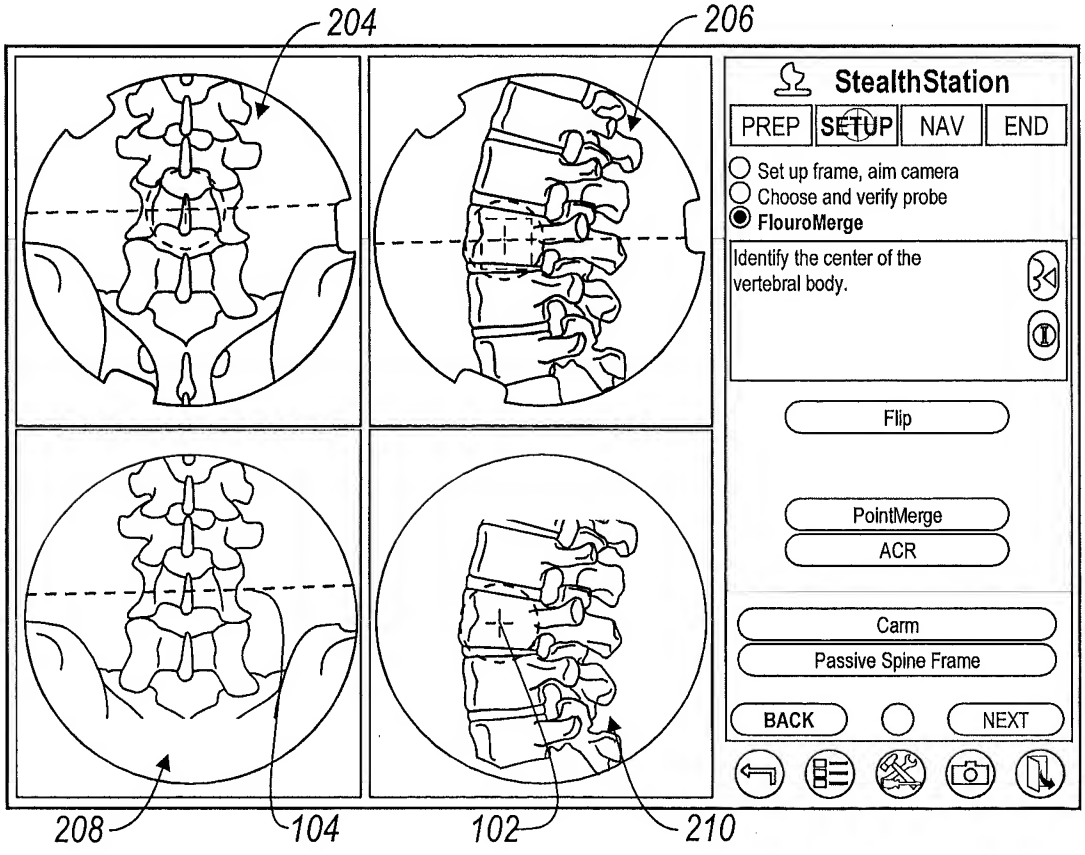
IDENTIFY CENTER OF VERTEBRAL BODY

FIG. 9



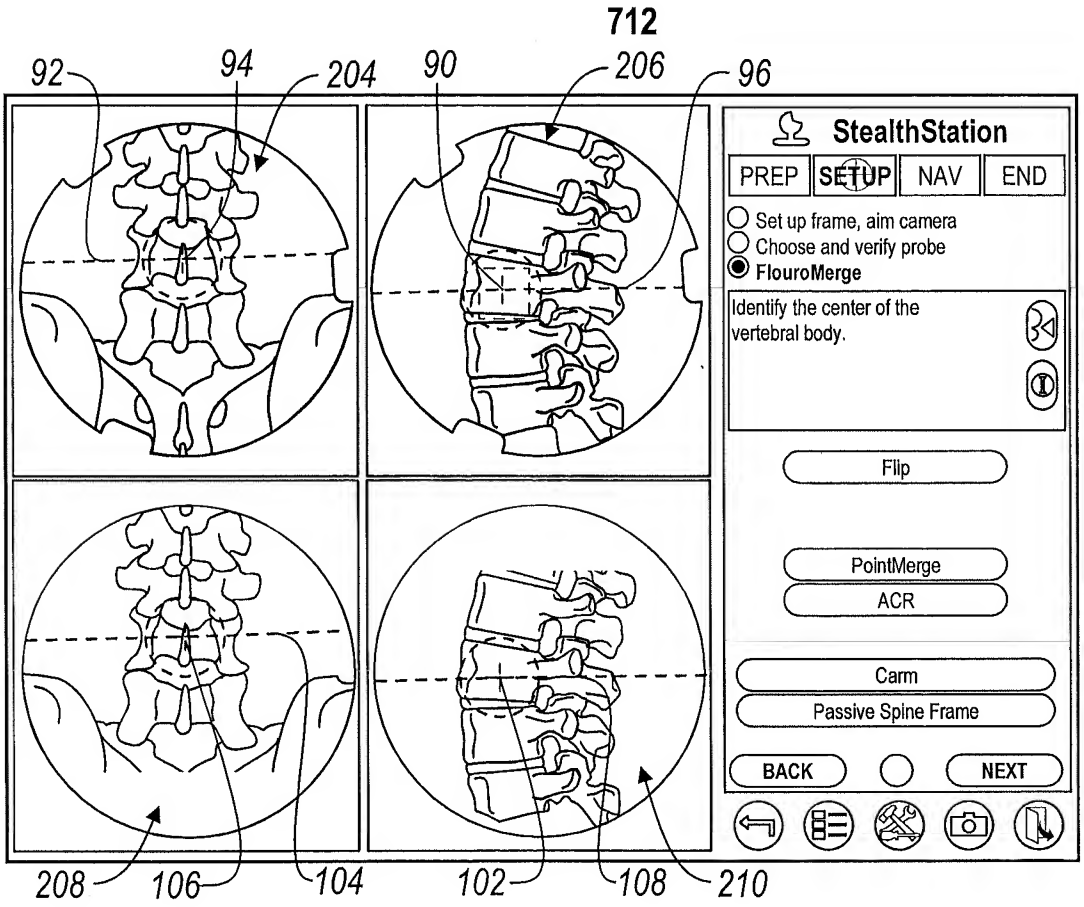
IDENTIFY CENTER OF VERTEBRAL BODY

FIG. 10



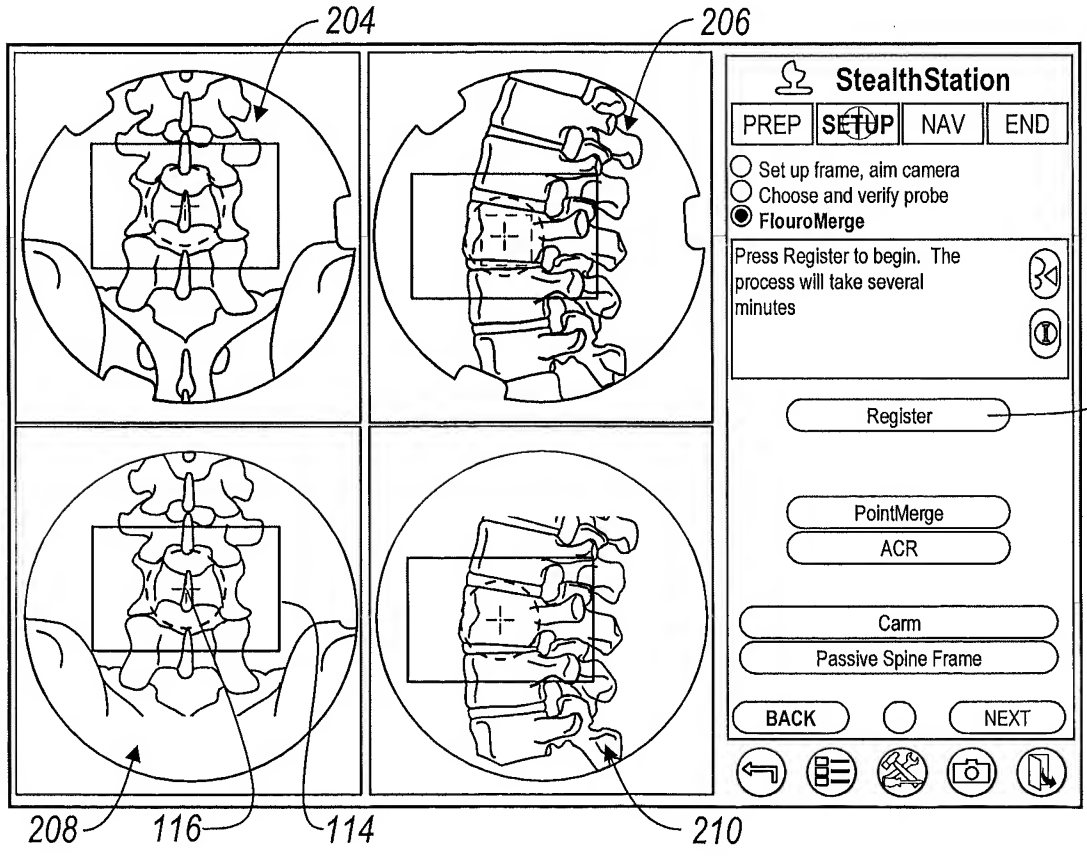
IDENTIFY CENTER OF VERTEBRAL BODY

FIG. 11



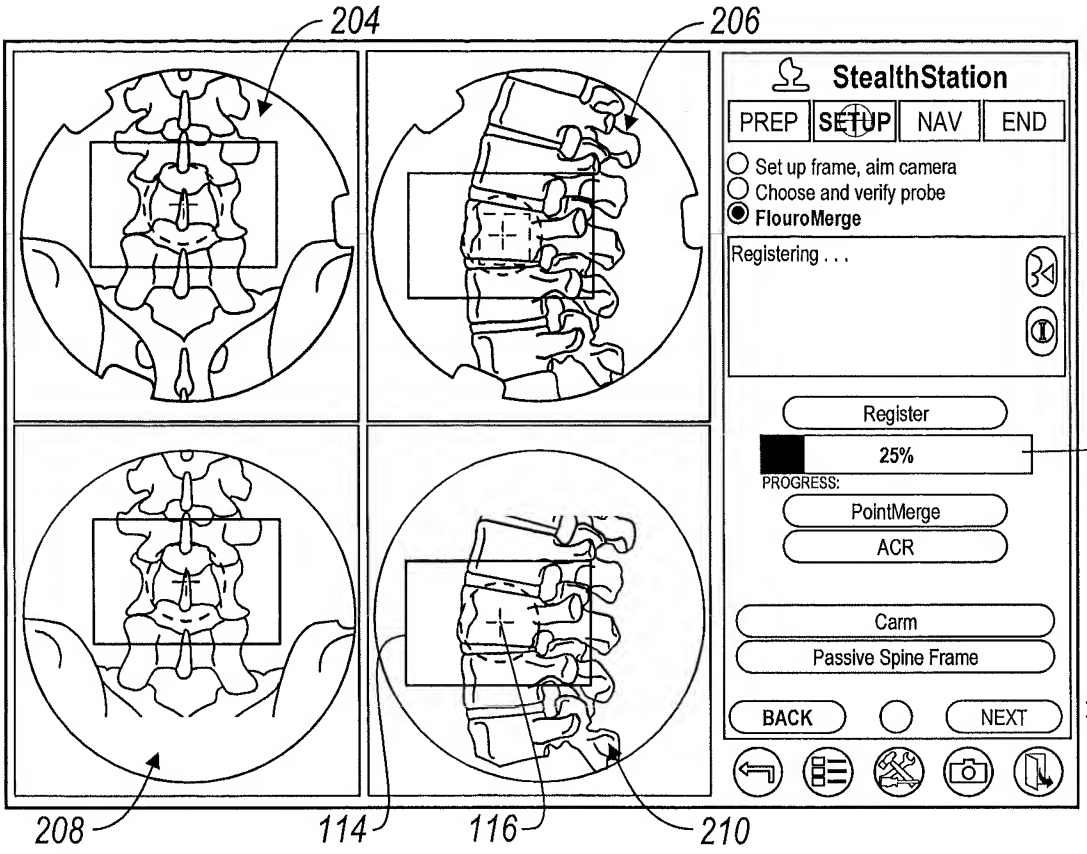
IDENTIFY CENTER OF VERTEBRAL BODY

FIG. 12



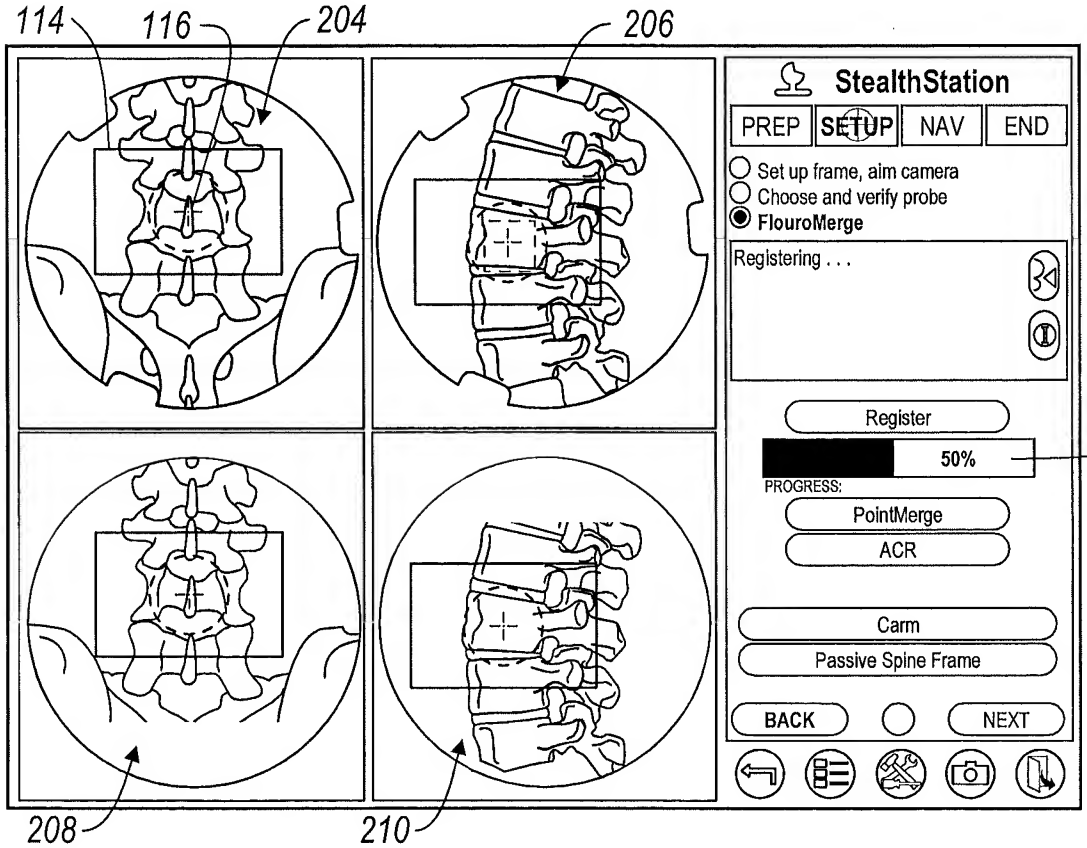
REGISTER

FIG. 13



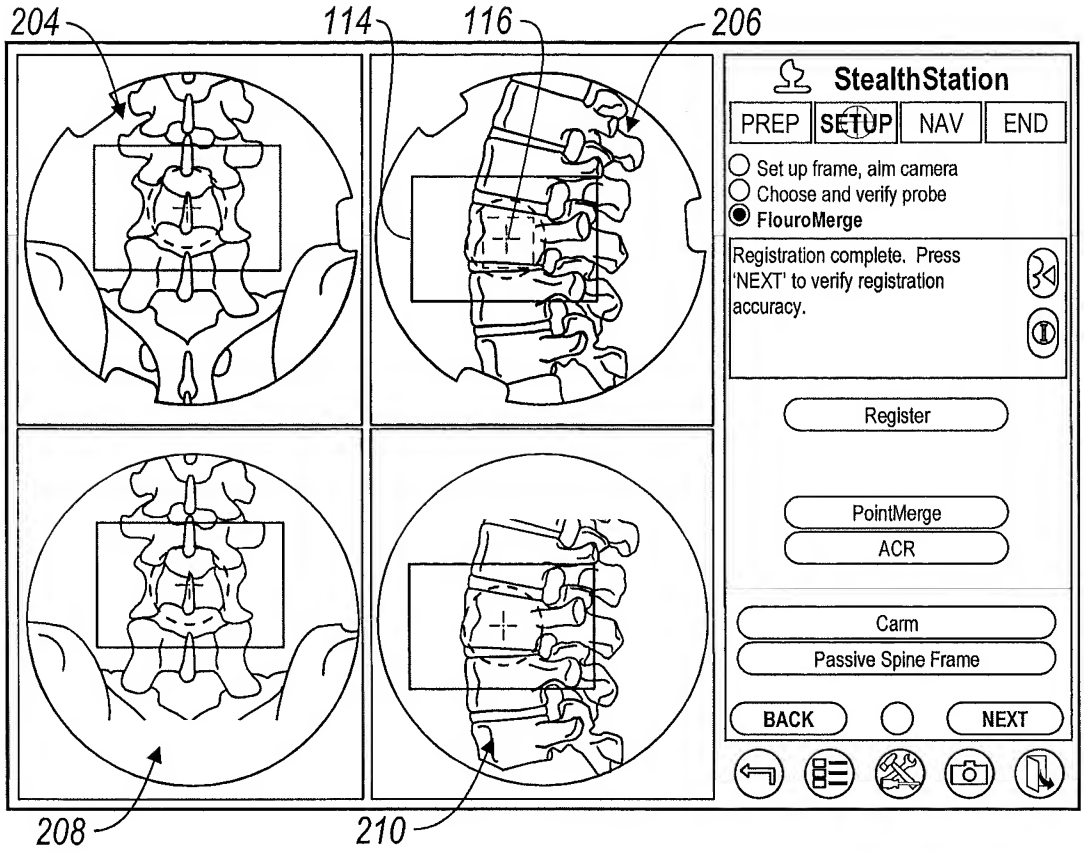
REGISTERING

FIG. 14



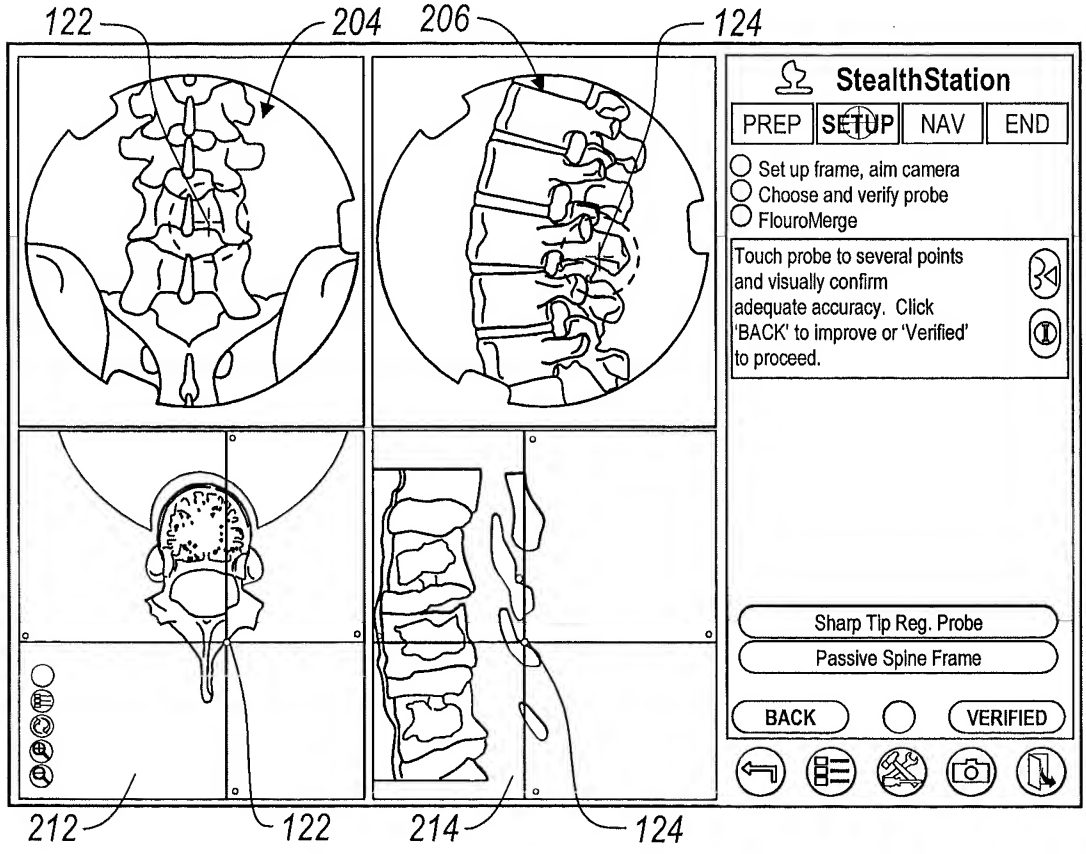
REGISTERING

FIG. 15



REGISTRATION COMPLETE

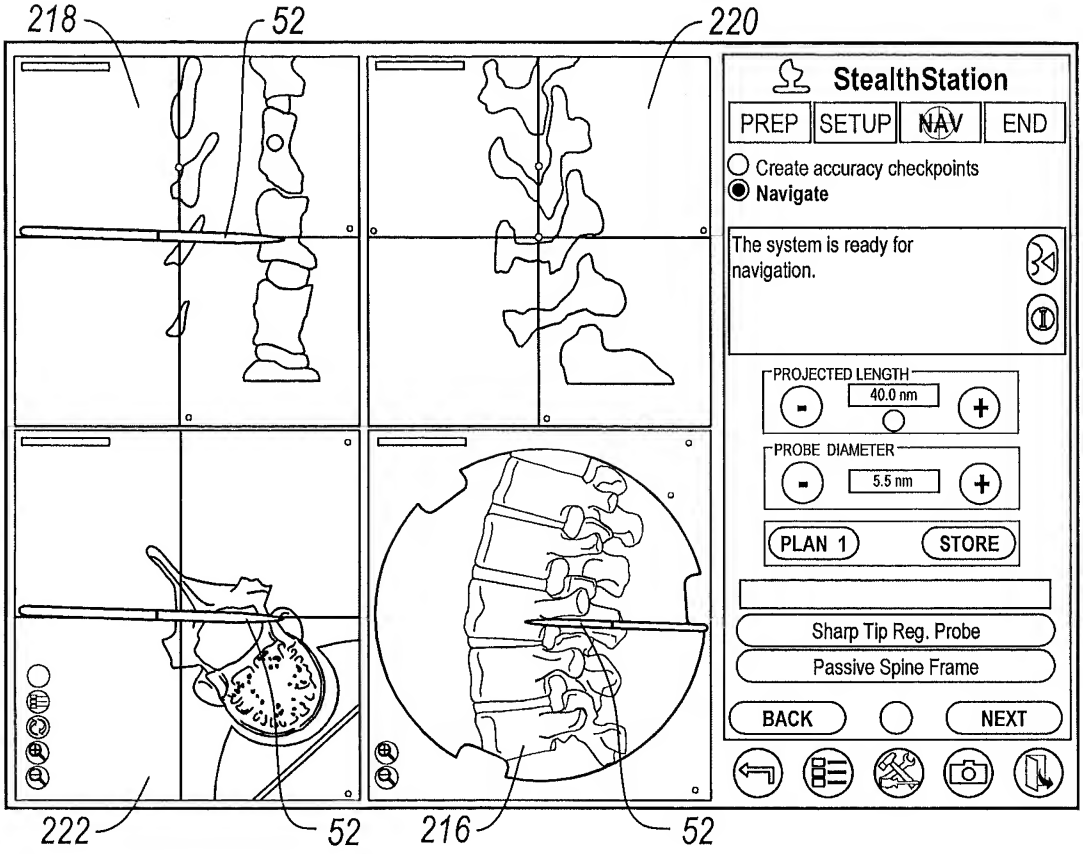
FIG. 16



VERIFY REGISTRATION ACCURACY

FIG. 17

10/12



NAVIGATE

FIG. 18

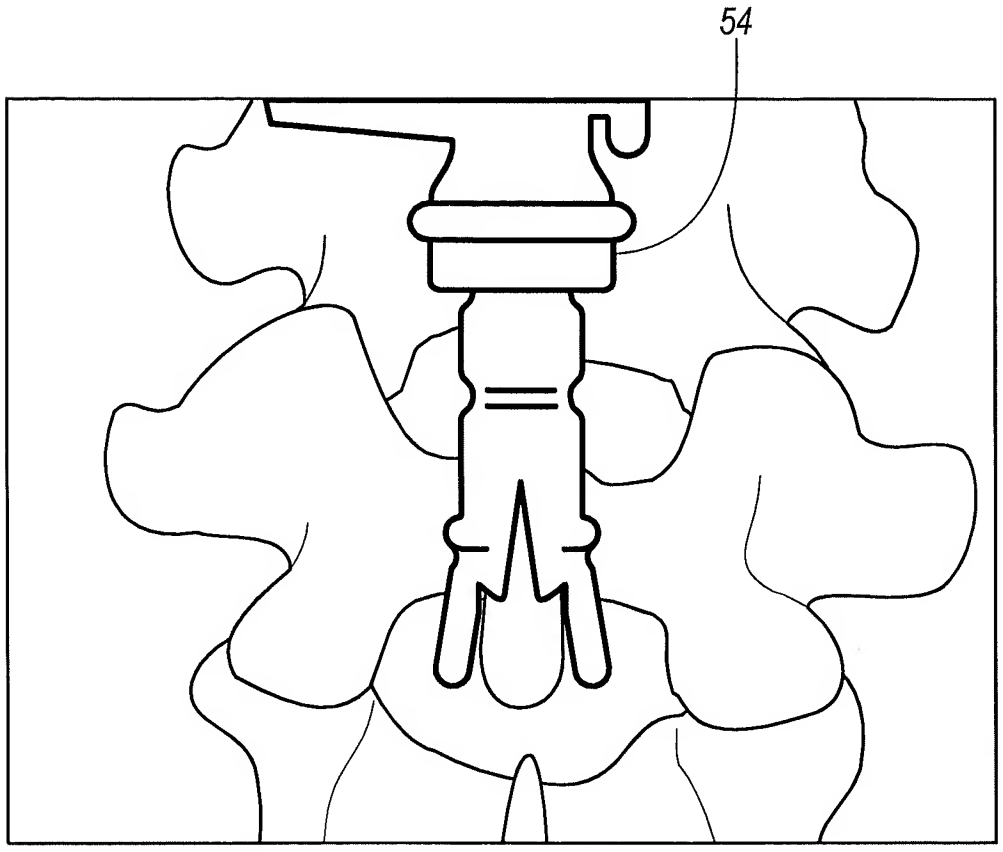


FIG. 19

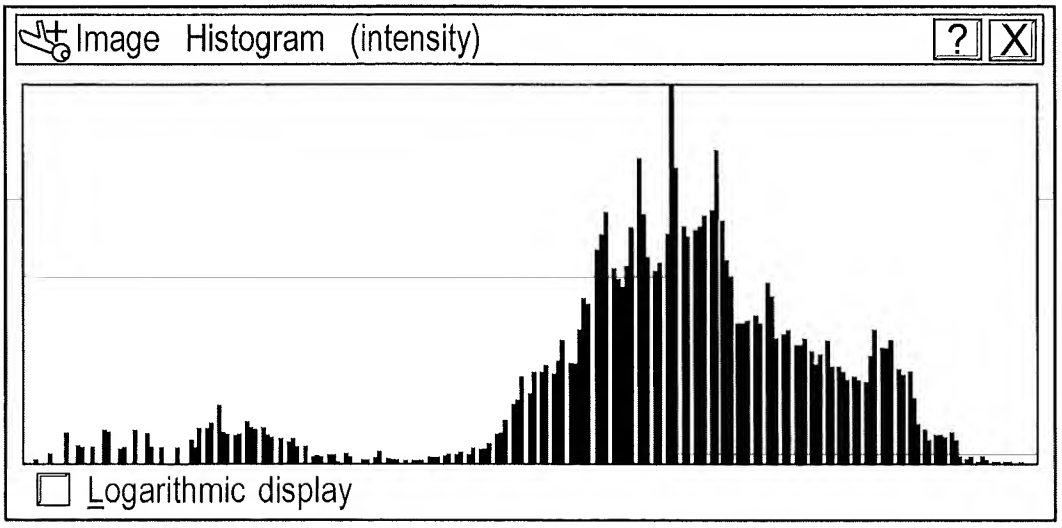


FIG. 20

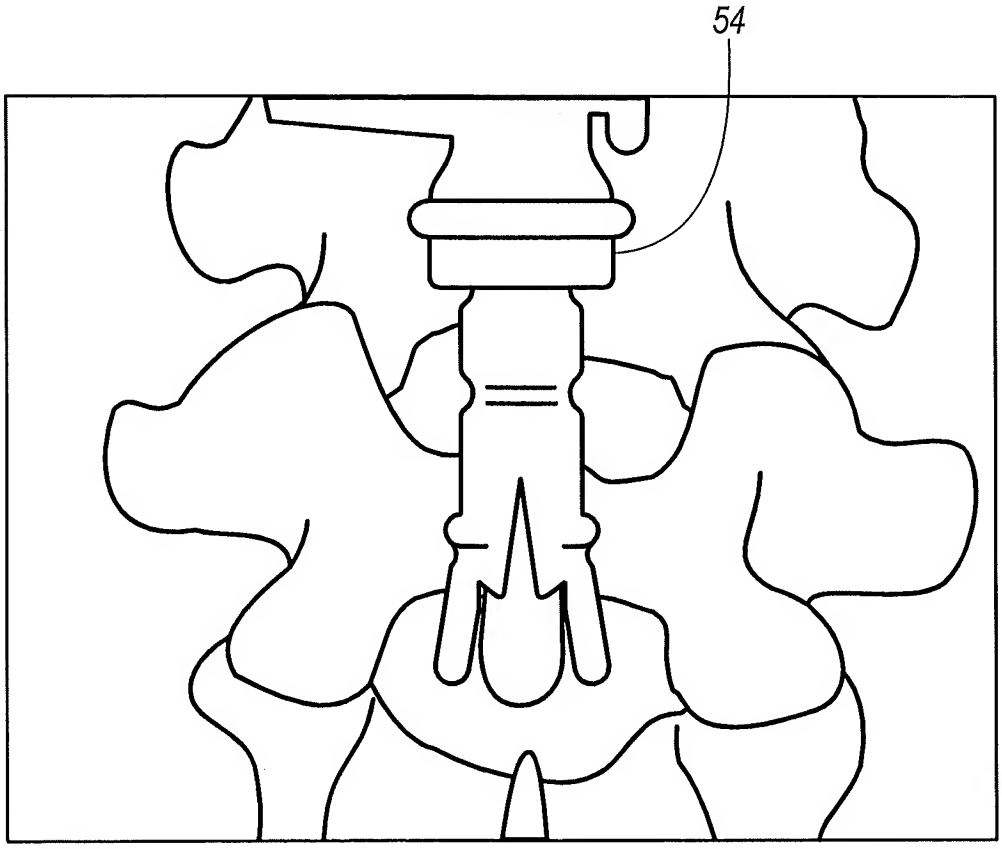


FIG. 21

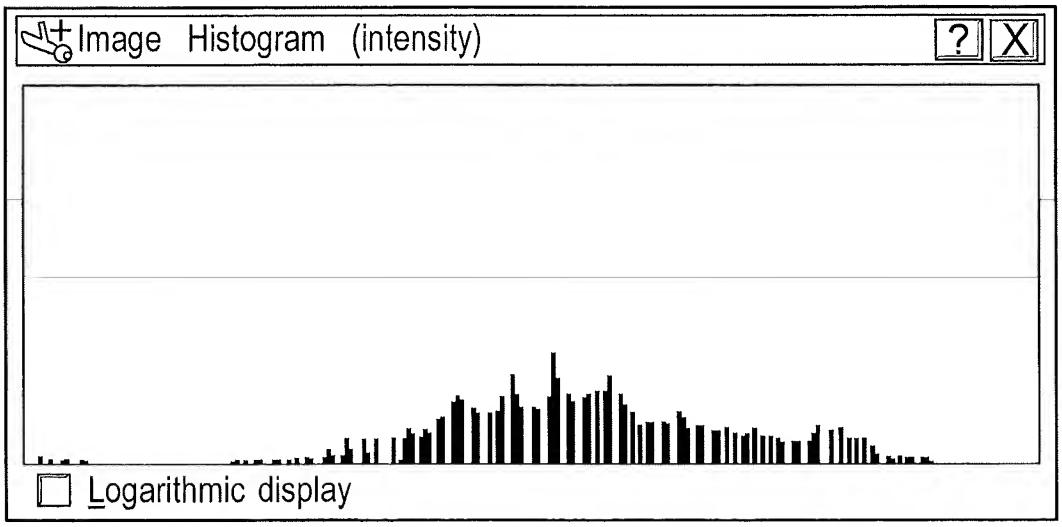


FIG. 22